

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC 7 G01N21/64

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01N G01J G02B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 983 846 A (RIOS ET AL) 8 January 1991 (1991-01-08)  column 2, line 34 - column 3, line 2 column 3, line 43 - line 45 figure 1	1-6, 11-16, 20-22, 38
X	WO 03/023379 A (APPRISE TECHNOLOGIES, INC; TOKHTUEV, EUGENE; OWEN, CHRISTOPHER,; SKIRD) 20 March 2003 (2003-03-20)	1-5, 7-14, 16-19, 23, 32, 33, 38
Y	paragraphs '0013! - '0015!, '0034!, '0035! figures 1-3  ----- -/--	24-31, 34-37



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

2 June 2005

Date of mailing of the international search report

04/08/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

D'Alessandro, D

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	GB 2 078 941 A (EUR CONTROL REGELTECHNIK GMBH) 13 January 1982 (1982-01-13) page 1, line 106 - page 2, line 38 figure 1	24-26, 34
Y	US 4 496 839 A (BERNSTEIN ET AL) 29 January 1985 (1985-01-29) column 2, line 64 - column 3, line 33 figure 1	27-30
Y	US 6 157 033 A (CHUDNOVSKY ET AL) 5 December 2000 (2000-12-05) abstract column 3, line 18 - line 19 column 5, line 66 - column 6, line 11 figure 1	31, 35
Y	GB 2 089 501 A (CONOCO INC) 23 June 1982 (1982-06-23) cited in the application abstract figure 1	36, 37
A	GB 1 281 748 A (FRUNGEL) 12 July 1972 (1972-07-12) figure 1 page 2, line 69 - page 3, line 32	1-38
A	US 2003/123254 A1 (BRASS JACK ET AL) 3 July 2003 (2003-07-03) abstract figures 1-3 paragraphs '0005!, '0009!, '0012!, '0027!, '0031!, '0084!	1-38

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4983846	A	08-01-1991	US 5034615 A	23-07-1991
WO 03023379	A	20-03-2003	WO 03023379 A1	20-03-2003
			US 2003048445 A1	13-03-2003
GB 2078941	A	13-01-1982	DE 3020168 A1	03-12-1981
			JP 57056735 A	05-04-1982
US 4496839	A	29-01-1985	NONE	
US 6157033	A	05-12-2000	NONE	
GB 2089501	A	23-06-1982	US 4394573 A	19-07-1983
			AU 534794 B2	16-02-1984
			AU 7663181 A	24-06-1982
			BR 8107780 A	31-08-1982
			CA 1165137 A1	10-04-1984
			DE 3149728 A1	15-07-1982
			DK 422881 A	16-06-1982
			ES 8303690 A1	01-05-1983
			ES 8308080 A1	01-11-1983
			FR 2496265 A1	18-06-1982
			GB 2150283 A, B	26-06-1985
			GR 74340 A1	25-06-1984
			IT 1139717 B	24-09-1986
			JP 57101746 A	24-06-1982
			NL 8105428 A	01-07-1982
			NO 813379 A	16-06-1982
			OA 6957 A	31-07-1983
			PH 17146 A	04-06-1984
			RO 88289 A1	30-12-1985
			US 4434364 A	28-02-1984
			YU 273481 A1	31-12-1983
GB 1281748	A	12-07-1972	NONE	
US 2003123254	A1	03-07-2003	AU 2002351635 A1	30-07-2003
			WO 03060495 A1	24-07-2003
			CA 2460205 A1	24-07-2003
			GB 2403800 A	12-01-2005
			US 2005083687 A1	21-04-2005
			US 2004223342 A1	11-11-2004